

## REMARKS / ARGUMENTS

### I. General Remarks

Please consider the application in view of the following remarks.

### II. Disposition of Claims

Claims 1-19 are pending in this application.

Claims 7-10 and 13-16 have been amended herein. These amendments are supported by the specification as filed.

Claims 1, 2, 4, and 6-16 stand rejected under 35 U.S.C. § 103(a). The Examiner has objected to claims 3, 5, and 17-19.

### III. Rejections of Claims Under 35 U.S.C. § 103(a)

Claims 1, 2, 4, and 6-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,042,032 to Anderson *et al.* ("Anderson"). With respect to this rejection, the Examiner writes:

[Anderson] discloses a method of consolidating particulates in a subterranean region. Looking mainly at column 11, lines 10-59, a preflush fluid is first applied to the formation. After the preflush, a resin composition is injected. The resin composition includes a mixture of phenol, phenol formaldehyde, furfuryl alcohol, a silane coupling agent and a surfactant. The silane coupling agent is present in about .1 to 2 per cent by weight of the resin composition. The surfactant is present from about .1 to 2 per cent surfactant. The mixture of phenol, phenol formaldehyde and furfuryl alcohol is present from 10 to 100 per cent of the resin. [Anderson] does not specifically break down the amount of each that is present. In view of the fact that the specification contains no clear reason why the list of ingredients be present in the claimed ranges, and the ingredients claimed are present in the overall claimed ranges, it would have been considered obvious to provide the phenol, phenol formaldehyde and furfuryl alcohol in the claimed ranges. A post-flush is applied after injection of the resin.

(Office Action at page 3 (emphasis added).) Applicants respectfully disagree. Anderson does not obviate claim 1 since (1) Anderson does not teach or suggest each element of claim 1, and (2) the modification of Anderson to recite the elements of claim 1 would not be obvious to a person of ordinary skill in the art.

**A. Anderson Does Not Teach or Suggest Each Element of Claim 1.**

To form a basis for a § 103(a) rejection, a prior art reference must teach or suggest each element in the claim in such a way that enables a person of ordinary skill in the art to make or use the claimed invention. MANUAL OF PATENT EXAMINING PROCEDURE §§ 2141.01(II) & 2142 (2004). However, Applicants respectfully assert that *Anderson* does not teach or suggest a resin composition comprising a mixture of all three of phenol, phenol formaldehyde, and furfuryl alcohol, as recited in claim 1. The passage cited by the Examiner merely teaches that the consolidating fluids used in *Anderson* may comprise “a monomeric liquid diluent selected from the group consisting of phenols, formaldehydes, furfuryl alcohol and furfural,” but does not teach or suggest a resin composition that comprises a mixture of these elements, much less the mixtures recited in claim 1. (*Anderson* at col. 11, ll. 14-19.) Nor do any of the examples or preferred embodiments of consolidating fluids discussed in *Anderson* include all three of phenol, phenol formaldehyde, and furfuryl alcohol, as recited in Applicants claims. (See *Anderson* at Examples I-IX (describing consolidating fluids that comprise a furfural diluent), Examples XI & XIII (describing consolidating fluids that comprise a furfuryl alcohol diluent), & Example XIV (describing a consolidating fluid that comprises a furfural/furfuryl alcohol diluent).) *Anderson*’s disclosure listing possible diluents does not enable a person of ordinary skill in the art to make or use a resin composition comprising a mixture of all three of phenol, phenol formaldehyde, and furfuryl alcohol, as recited in claim 1. Therefore, *Anderson*, standing alone, cannot obviate claim 1.

**B. The Modification of *Anderson* Is Not Obvious.**

Also, it would not be obvious to a person of ordinary skill in the art to modify *Anderson* to provide phenol, phenol formaldehyde, and furfuryl alcohol in the concentrations recited in claim 1. Where the teachings of a prior art reference are modified to form the basis of a § 103(a) rejection, there must be some suggestion, in the reference itself or within the knowledge of a person skilled in the art, to make that modification. MANUAL OF PATENT EXAMINING PROCEDURE § 2143.01 (2004). However, the Examiner cites no reference or teaching in the art to support his statement as to the supposed motivation of a person of ordinary skill in the art, and thus fails to establish a *prima facie* case of obviousness under § 103(a). *Id.* at § 2144.03. To the extent that Examiner relies on such a statement to supply the necessary motivation to modify *Anderson* to provide phenol, phenol formaldehyde, and furfuryl alcohol in

the concentrations recited in claim 1, Applicants hereby respectfully request under Manual of Patent Examining Procedure § 2144.03 that the Examiner supply an affidavit or other documentary proof establishing the prior art knowledge that would have motivated a person of ordinary skill in the art to provide the phenol, phenol formaldehyde, and furfuryl alcohol in the claimed concentrations.

Applicants therefore respectfully assert that *Anderson* does not obviate the methods recited in claim 1, and thus this claim is patentable over *Anderson*. Moreover, since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 2, 4, and 6-16 depend, either directly or indirectly, from claim 1, these dependent claims are allowable for at least the same reasons. *See* 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

#### **IV. Allowable Subject Matter**

The Examiner has objected to claims 3, 5, and 17-19, although he stated that these claims “would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (Office Action at page 4.) As Applicants have traversed the Examiner’s rejections of the base claim (*i.e.*, independent claim 1), Applicants respectfully assert that claims 3, 5, and 17-19 as presented herein are allowable.

#### **V. Prior Arguments**

The Examiner noted in the Office Action that Applicants’ arguments with respect to claims 1-19 in their response filed on June 3, 2005 have been considered but are moot in view of the new grounds of rejection. (Office Action at page 4.) Applicants respectfully maintain all of the arguments contained in that response as they apply to the pending claims, as amended herein, and respectfully request the withdrawal of any remaining rejections and/or objections that were traversed in that response.

## SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with this filing of this Response. However, should the Commissioner deem that any additional fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300.

Respectfully submitted,



Robert A. Kent  
Registration No. 28,626  
Halliburton Energy Services, Inc.  
2600 South Second Street  
P.O. Drawer 1431  
Duncan, OK 73536-0440  
Telephone: 580-251-3125

## **ATTORNEY FOR APPLICANTS**

Date: 10/18/2005